

## **MODIS TECHNICAL TEAM MEETING**

**Building 33, Room G133  
January 21, 2000**

Vince Salomonson chaired the MODIS Technical Team Meeting. Present were Ken Anderson, Barbara Conboy, Wayne Esaias, Al Fleig, Bruce Guenther, Dorothy Hall, David Herring, Michael Hohner, Chris Justice (via telecon), Gene Legg (NOAA), Ed Masuoka, Harry Montgomery, Skip Reber, and George Serafino, with Deborah Howard recording the minutes.

### **1.0 SCHEDULE OF EVENTS**

SWAMP Meeting GSFC	March 2-3, 2000
EOS-IWG Tucson, AZ	April 11-13, 2000
AGU 2000 Spring Meeting Washington, DC	May 30-June 3, 2000
COSPAR 2000 Warsaw, Poland	July 16-23, 2000
COSPAR/IRS Joint Symposium Warsaw, Poland and St. Petersburg, Russia	July 21 and July 24, 2000
IGARSS 2000 Honolulu, HI	July 24-28, 2000
IRS-2000 St. Petersburg, Russia.	July 24-29, 2000
VENICE-2000 (Oceans from Space) Venice, Italy	October 9-13, 2000
EOS-PM Launch	December 21, 2000

### **2.0 MINUTES OF THE MEETING**

#### **2.1 Instrument Report**

Anderson reported that the spacecraft returned to nominal control and that the transition to science mode is planned for Monday, January 24. The cause of the nominal burn anomaly is not yet known. A new burn sequence is being developed to get Terra to its final orbit at the earliest possible date. Coordinated Terra and Landsat 7 orbits are planned. Anderson said that the Aqua Pre-Environmental Review is scheduled for February 16-17 at TRW.

Guenther reported that 14 days of engineering testing are planned after opening the space view door and before opening the earth view door. Opening the nadir aperture door (NAD) is planned for February 7 or 14.

Salomonson asked how noticeable the scan gaps in images taken by MODIS before Terra gets to the nominal 705 km. altitude. Guenther, Fleig, and Esaias agreed that the scan gaps would not be noticeable in an RGB image.

Justice asked about MOPITT's plans regarding opening its door after the delta-V maneuvers. Guenther replied that the issue is instrument placement on the spacecraft. He said MODIS is up front and this is not an issue for MODIS. An orbit adjustment maneuver is planned once per month. The match phase between Landsat 7 and Terra is every 10 days based on short, 30 -60 second burns. Guenther said that he would ask for S/C firings to go to 705 kilometers on February 1 rather than at the end of January because yaw maneuvers are scheduled with the NAD closed.

## **2.2 GDAAC**

Serafino reviewed GDAAC Notes for the MODIS Technical Team Meeting dated 1/21/2000 (see Attachment 1). PGE01 has been modified to run with predictive attitude data. The DAAC is working on a fix to the PGE01 production rule rather than to the algorithm. Serafino said that he would find out when that fix would be done. The ECS system Drop 5A.03 is in DAAC Ops, and test modes. Everything seems all right according to testing.

## **2.3 MODAPS**

Masuoka mentioned that ESDIS budget concerns remain. He said that Chris Scolese would follow up on how the budget shortfall might affect MODAPS.

Masuoka reviewed PGE Status dated 1/21/2000 (see Attachment 2). He said the DAAC fixes for Level 1A split scans should work. There is one field that does not work correctly in PGE04, however, a patch is being developed for this metadata problem. PGE 49, an Ocean PGE, has gone through the Science Software Transfer Group (SSTG) process and is ready to be tested. Most PGE issues, except for the polar grid issue, are metadata insert issues. The interim daily atmosphere is awaiting an ECS fix expected in ECS Drop 5B. Masuoka reported the 10 Terabyte disk should be online today.

## **2.4 Terra**

Herring reported that there is a lot of interest as measured by the number of "hits" on the Terra Web site (see <http://terra.nasa.gov>). There were more than 400,000 page views for the month of December 1999 and so far, in January 2000, there have been more than 125,000 page views.

The group briefly discussed suggestions for the first public presentation of Terra images. Herring said that Bruce Barkstrom suggested focusing on certain natural themes, such as La Nina. The instrument teams could produce images of things affected by La Nina and El Nino, such as snow extent, precipitation, and cloud

cover. He emphasized that early images would be kept simple. Salomonson expressed a non-binding preference for an image of the East coast of the U.S. In any case, he would like to wait for good images and/or results before being committed to releasing MODIS images.

## **2.5 PIP/Land**

Justice said that he sent a summary to Mike Moore (ECS) regarding MOSS-3 feedback on challenges using the EOS Data Gateway (EDG) system to access MODIS Data. He advises focusing on this and related issues. At the PI Processing meeting yesterday (January 20, 2000), the group discussed challenges to getting Oceans items out of the DAAC and how to work with processing at .5x.

Justice said that the Land team would most like to see the 250m data and surface reflectance, snow cover, and fire products from MODIS.

Fleig said that the Land group has a good example of a first image that would be presented at the next Tech Team meeting.

## **2.6 Oceans**

Esaias said the Oceans discipline group is optimistically looking toward testing at first light. Salomonson asked how Mark Abbott would show the fluorescence product (versus other products) in an image. Esaias explained that fields of chlorophyll and fluorescence would look different. Fluorescence reflects the physiology of plankton and affects photosynthesis. Detail within the mapping would be apparent that would not be seen normally. He said it would show up best in a high chlorophyll field, where the chlorophyll would show concentrations and the fluorescence would show the physiology. However, understanding the differences would take a long time.

Ocean group concerns include subscription capability. It would be very difficult for users of Ocean data to get manageable size data through subscriptions from the DAAC.

MOBY will be in the water beginning February 15 and Esaias said it would be good to have the NAD open by then. He said clearances for working in Mexican waters, etc. are necessary and they need to know that the funding for the cruise is set.

## **2.7 Snow and Ice**

Hall said that her group's field experiment begins February 15 and their part runs about a week. She would like to see the NAD open by then. They would not move to a later date because snow gets thin after that. She said that Shusun Li from the University of Alaska also has a field campaign beginning February 15.

## **2.8 MAST**

Conboy asked for tentative dates for the next MODIS Science Team meeting. She said mid-May would be about 6 months from the last MST meeting and wanted

to know whether the team would like the next meeting to be sooner than that. Salomonson advised waiting to see when data comes out before planning a date for the next MST. He noted that the invited session on MODIS at the IGARSS 2000 meeting is full and another 20 or so contributed papers have been included in the IGARSS meeting. Esaias suggested holding a meeting local to GSFC at about the same time as IGARSS, which is scheduled for July 24–28, 2000.

As part of an effort to get information to the Science Team in a timely manner, Conboy has been forwarding weekly Terra Status and MODIS Instrument Operations Team (MODIOT) updates to the Science Team. Salomonson asked that Science Team members let him and Bob Murphy know if they have reservations about the timeliness with which they are receiving MODIS-related information.

### **3.0 ACTION ITEMS**

#### **3.1 Action Items Carried Forward**

1. Hohner: Reassess the use of the password protection on MODARCH and examine using password protection only for the proprietary documents.

Status: This action remains open. Ken Anderson said that one consideration is concern about international access. Esaias questioned whether MODIS should include the Science Team members' quarterly and semi-annual technical reports on the Web site. Hohner asked MODIS team members to please review the MODIS site and send him suggestions about it.

2. Fleig/Discipline Leads: Develop a standard for labeling of MODIS images including MODIS and/or EOS logos, credits, and references. Credits could include the names of Science Team members, the product developer, the Discipline group, and references to the developers/scientists of predecessor products.

Status: Fleig and Justice said they had worked on this issue and would bring a sample draft for early images to present at the next Tech Team meeting.

3. Masuoka: Send via e-mail a list of network contacts categorized according to Level 2, Level 3, etc. to MODIS team members.

Status: Sol Broder sent an e-mail to the MODIS team members. Masuoka will ask him to send it out again.

4. Hohner, Fleig, and Masuoka: Include a space for MODIS early images on the MODIS home Web site. After launch, it would include downloadable early images on the MODIS site and a link to the DAAC's for obtaining products and data. The TRMM and SeaWiFS Web pages and how they process and present images can be used as good examples.

Status: This item remains open.

5. Masuoka: Submit an EOS-PM Data Product Update to ESDIS.

Status: This action item remains open.